ATEN *Tech Note*

Real COM mode for ATEN Secure Device Server

This tech note applies to the following ATEN Secure Device Server models:

| Model	Product Name
SN3001	1-Port RS-232 Secure Device Server
SN3001P	1-Port RS-232 Secure Device Server with PoE
SN3002	2-Port RS-232 Secure Device Server
SN3002P	2-Port RS-232 Secure Device Server with PoE
SN3401	1-Port RS-232/422/485 Secure Device Server
SN3401P	1-Port RS-232/422/485 Secure Device Server with PoE
SN3402	2-Port RS-232/422/485 Secure Device Server
SN3402P	2-Port RS-232/422/485 Secure Device Server with PoE

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A. What is Real COM mode?

Real COM mode is recommended when your host PC uses legacy COM-based software and needs to connect with multiple RS-232/422/485 serial devices. This mode treats all the serial ports of a Secure Device Server as if they were directly connected to the PC and allows data to be transmitted securely over a network.


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B. **How to configure Real COM mode?**

The following procedure uses SN3002P as an example:

1. Using a null modem cable, connect the SN's serial port 1 to a serial device (e.g. PC's COM port, sensor, etc.).

2. Using an Ethernet cable, connect the SN's LAN port to your local network.

3. On a host PC, use IP Installer utility (can be downloaded from SN's product page) to discover the IP address of the SN3002P.
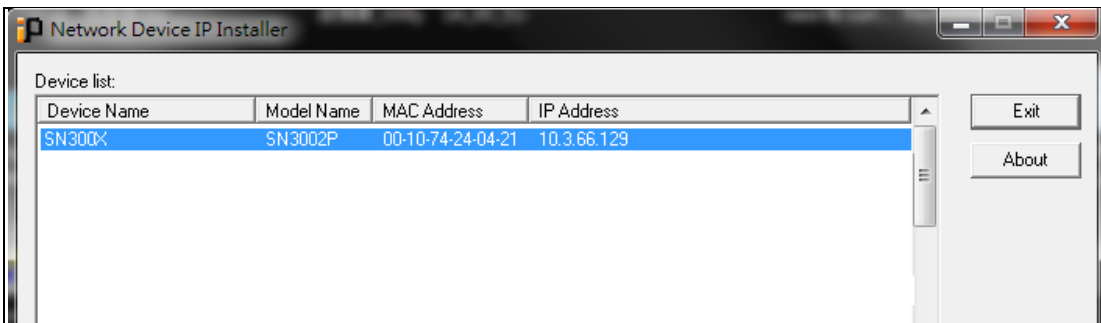

4. Using a web browser, enter the SN3002P's IP address, and log in.

5. Under *Serial Ports*, click the **EDIT** button of *Port 1*.
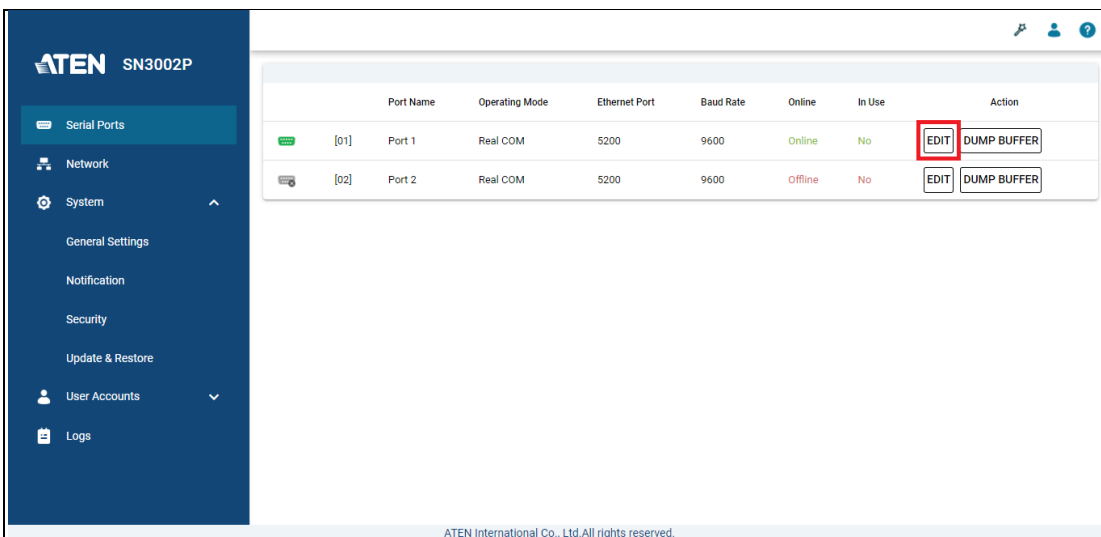
6. Under *PROPERTIES*, configure the necessary serial communication settings (e.g. baud rate, parity, etc.) to match with the connected serial device.
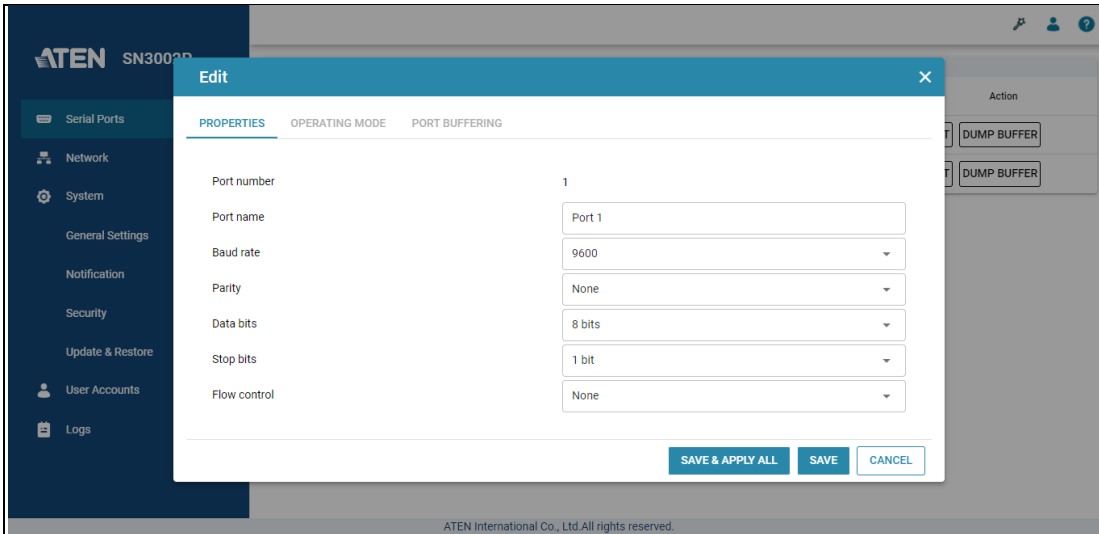

7. Under *OPERATING MODE*, select **Real COM** from the drop-down list. Optionally enable the **Secure transfer** option if you want the data to be encrypted and transmitted securely over a network.
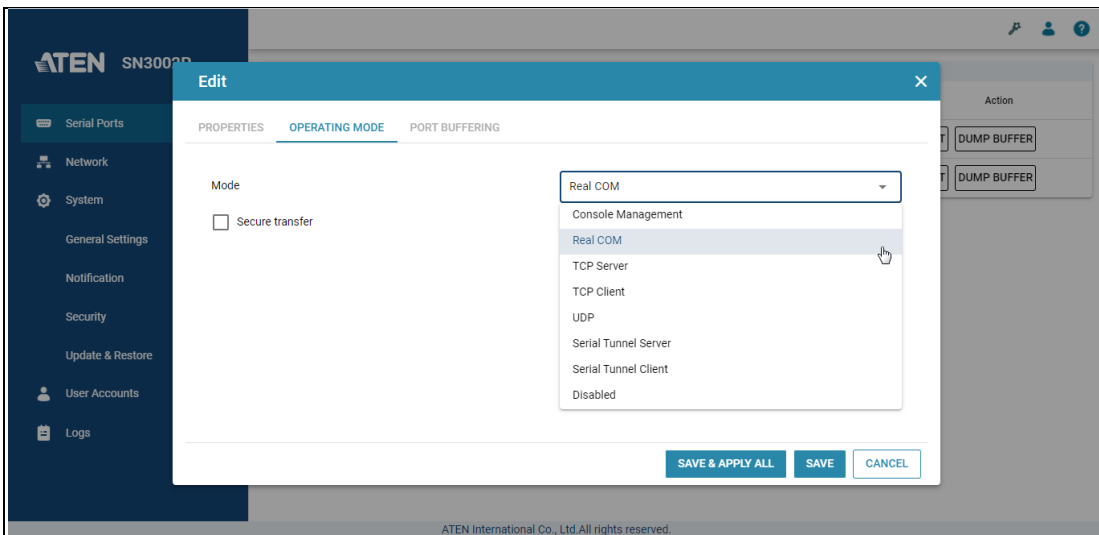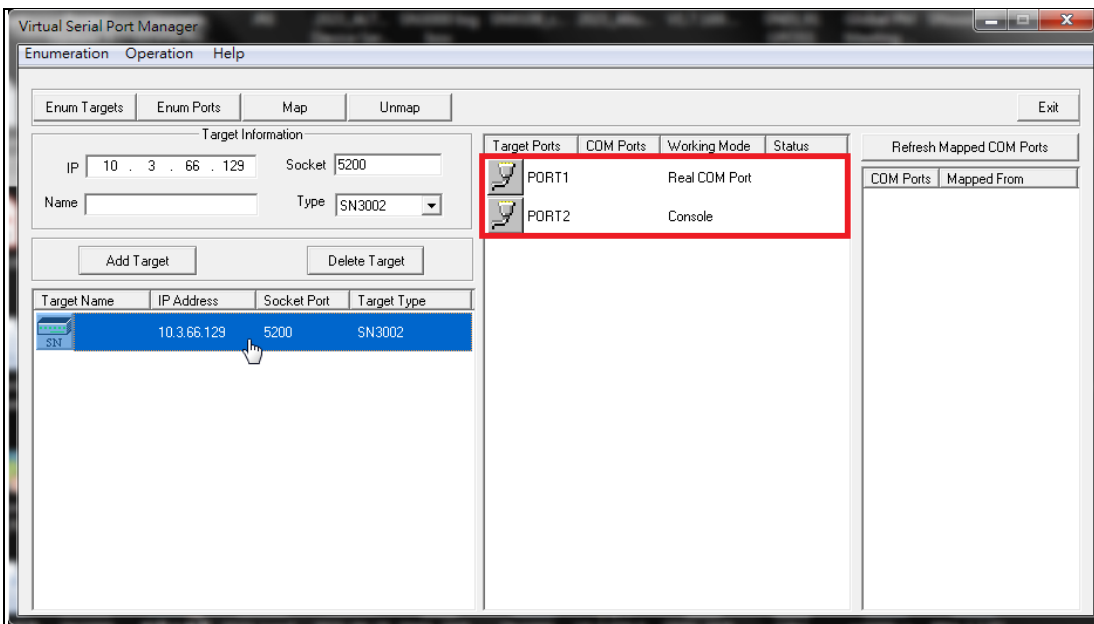

8. On the host PC, install ATEN Virtual COM port driver for Windows or Real TTY / Fixed TTY driver for Linux / Unix (can be downloaded from SN's product page).

9. Run ATEN Virtual COM port driver for Windows and click **Enum Targets** to automatically discover SN3002P within the same network segment.
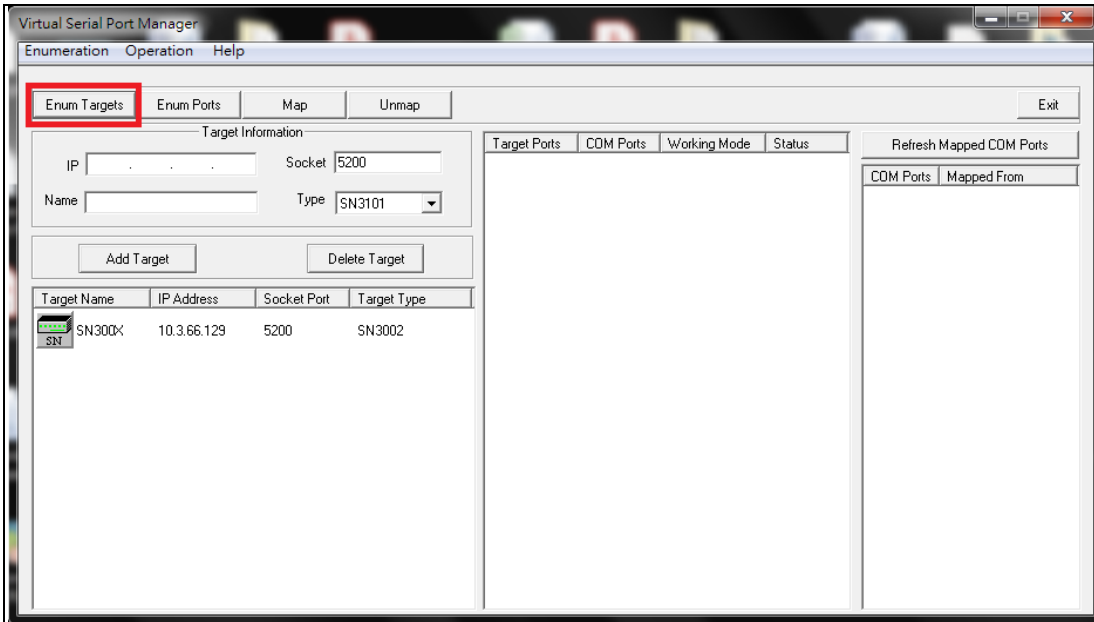

10. If SN3002P cannot be discovered, you can add it manually by entering its IP address, selecting **SN3002** from the *Type* drop-down list, and then clicking **Add Target**.

11. Once added, double-click the *SN3002 entry* to display its serial ports.

12. Click **PORT1** to map it with a certain virtual COM port (e.g COM1) of the host PC. Once successfully mapped, you will see COM1 in the list of mapped COM ports.
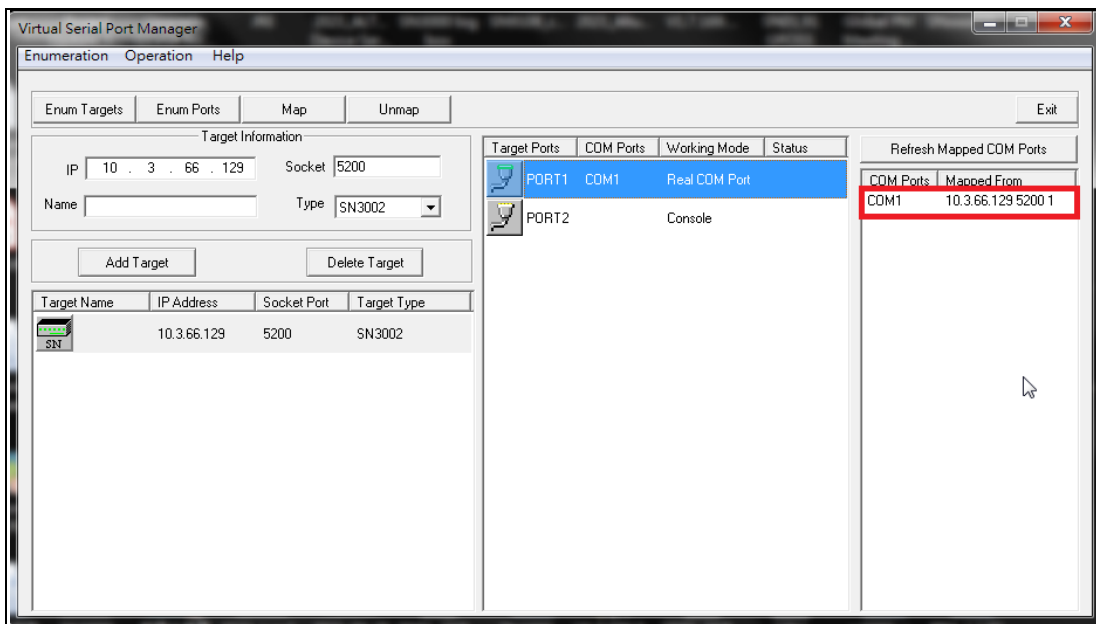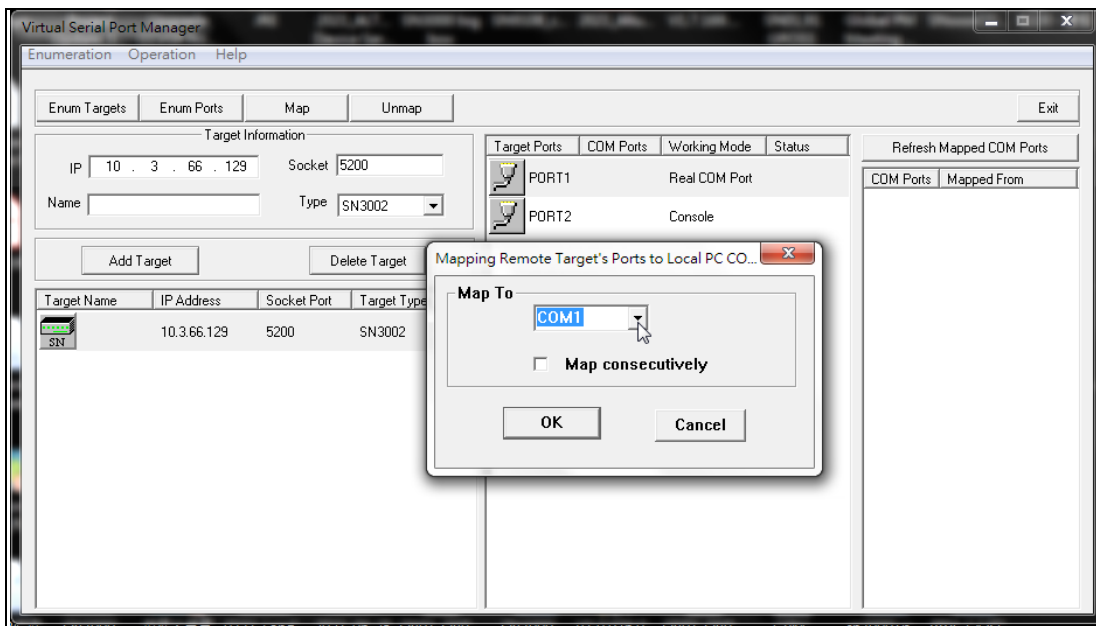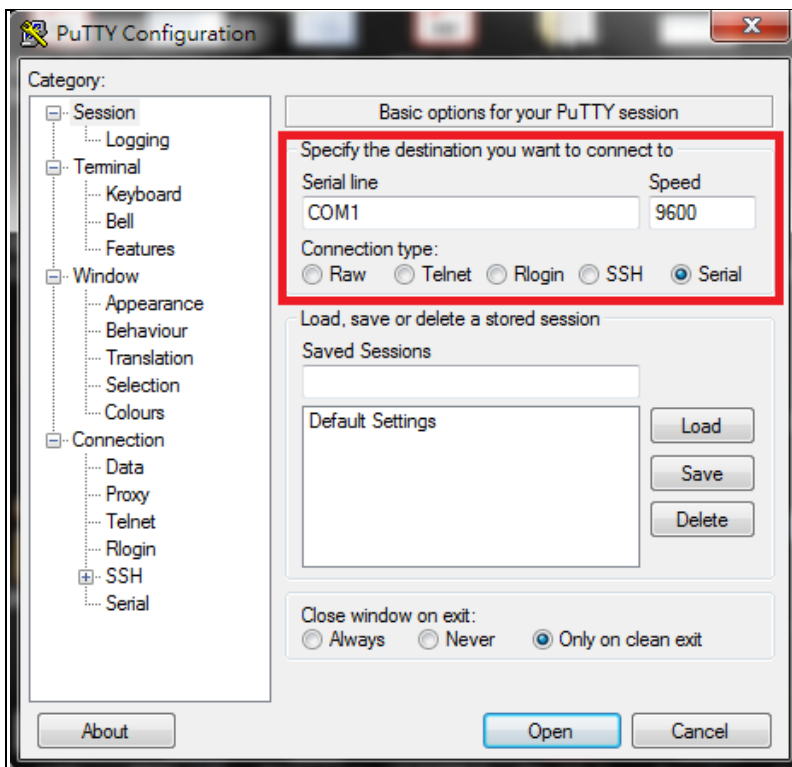
C. How to test Real COM mode?

Using PC1 as your host PC, with ATEN Virtual COM driver installed, and PC2's COM port as a serial device, presume the settings of SN3002P and the driver have been properly configured, as mentioned in the previous section.

1. On PC1 and PC2, use Putty, a third-party utility, to configure their serial communication settings, as illustrated below.

2. Using the Putty on PC2 (serial device), you can enter any text to test if it can be received by PC1 (host), as exemplified below.
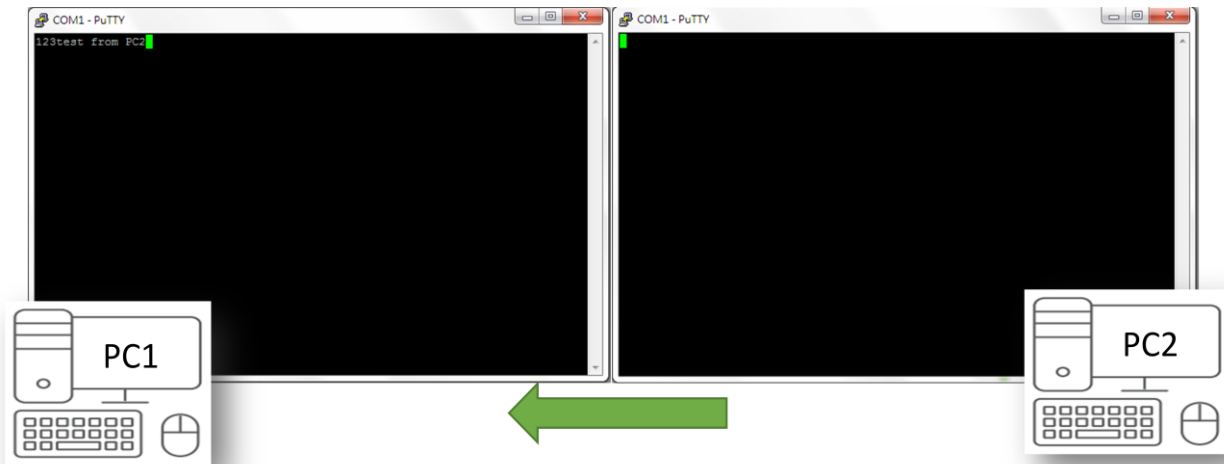
D. Appendix

ATEN Secure Device Server Pin Assignment

Pin	Configuration		
	RS-232	**RS-422/RS-485 (4-wire)**	**RS-485 (2-wire)**
1	DCD	RxD- (A)	
2	RxD	RxD+ (B)	
3	TxD	TxD+ (B)	Data+ (B)
4	DTR	TxD- (A)	Data- (A)
5	GND	GND	GND
6	DSR	-	
7	RTS	-	
8	CTS	-	
9	-	-	-